

Attorney Docket No.: TI-0028
Inventors: Gerard et al.
Serial No.: 10/688,665
Filing Date: October 17, 2003
Page 3

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A purified and isolated CEL II ~~or CEL I~~ endonuclease protein having a specific activity of greater than 10,000,000 units per mg protein as determined by DNA solubilization at pH 8.5 or CEL I endonuclease protein having a specific activity of greater than 96,000,000 units per mg protein as determined by DNA solubilization at pH 5.5.

Claim 2 (original): The isolated CEL II endonuclease of claim 1, wherein said CEL II endonuclease is substantially free of CEL I endonuclease.

Claim 3 (original) The isolated CEL I endonuclease of claim 1, wherein said CEL I endonuclease is substantially free of CEL II endonuclease.

Claim 4 (original): A method for preparing an isolated CEL I or CEL II endonuclease protein of claim 1 comprising:

- a) extracting proteins from a sample;
- b) separating the proteins by concanavalin A affinity chromatography;
- c) separating the product of step (b) by anion exchange chromatography; and
- d) separating the product of step (c) by Heparin affinity chromatography so that a CEL I or CEL II protein is isolated.

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Page 4

Claim 5 (original): The method of claim 4, further comprising separating the product of step (d) by one or more Heparin affinity chromatography steps.

Claim 6 (original): The method of claim 4, wherein the sample is of plant origin.

Claim 7 (original): The method of claim 6, wherein the plant is celery.

Claim 8 (original): A method for separating CEL I and CEL II in a mixture comprising subjecting a mixture containing CEL I and CEL II to heparin affinity chromatography so that CEL I and CEL II are separated.

Claim 9 (currently amended): A composition comprising the isolated CEL II or CEL I endonuclease of claim 1.

Claims 10-12 (canceled).